fury (though Mr. Wallace furnishes a possible analogy to ancient custom in what we may call a sociable Amok), the contagion of fear makes it easily intelligible how even a district might come to see and hear what had no existence save in the disturbed imagination of one. The Incubi and Suscubi of the Middle Ages in Europe may be paralleled at the present day in asylums, and, now as then, are met with among those who have placed themselves in conditions similar to the unhealthy ones of the Convent.

In reading over the confessions of the witches in England and Scotland, it is strange to find how exactly the language employed expresses the frequently described sensations of women labouring under uterine and ovarian disease. Doubtless, not all thus suffered; but the confusion once made and heard would be repeated by the unhappy imbeciles from whom chiefly the witch ranks were recruited. JOHN YOUNG

Glasgow University

### The Vervain and Yellow Fever

ALLOW me to say a few words on the report of the English Vice-Consul at Ciudad, Bolivar, concerning the efficacy of the Vervain plant as a remedy for yellow fever and black vomit (NATURE, March 21, p. 412). The plant in question is *Stachytarpha jamaicensis*, Vahl, a very common and rather troublesome weed, called in Spanish America "Verbena," in the British West Indies "Vervain," and in the Brazils "Gervaô." Its medicinal properties have been greatly exaggerated, though it is certainly somewhat aromatic and astringent; but in yellow fever and black vomit its efficacy is next to nothing. For a good description of the plant and some notes on its supposed and real virtues, I refer to Auguste de St. Hilaire, "Plantes usuelles du Brésil," plate 39 (Paris, 1824). Another tolerably good figure is given by Sloane, "The Natural History of Jamaica," plate 107, 1, who mentions several diseases against which it was used in his times (and probably still), stating finally, that "it is good against charms." A. ERNST

Caracas, Venezuela, May 6

## ELECTRIC VALENTINE

TELEGRAPH CLERK ♂ TO TELEGRAPH CLERK ♀

"THE tendrils of my soul are twined
With thine, though many a mile apart;
And thine in close-coiled circuits wind
Around the magnet of my heart.

"Constant as Daniell, strong as Grove;
Seething through all its depths, like Smee;
My heart pours forth its tide of love,
And all its circuits close in thee.

"O tell me, when along the line
From my full heart the message flows,
What currents are induced in thine?
One click from thee will end my woes."

Through many an Ohm the Weber flew,
And clicked this answer back to me—
"*I am thy Farad, staunch and true,
Charged to a Volt with love for thee.*"

$\frac{dp}{dt}$

[NOTE BY THE EDITOR—

Ohm = Standard of resistance.
Weber = Electric current.
Volt = Electromotive force.
Farad = Capacity (of a condenser).

Velocity of Puck, $\frac{\text{Once round the Earth}}{\text{40 minutes.}}$

" of Ohm, $\frac{\text{Quadrant of meridian of Paris}}{\text{1 second.}}$

∴ 1 Ohm = 600 Pucks.]

## NATURAL SCIENCE AT OXFORD

IT has been resolved in Convocation that the Curators of the University Chest be authorised to pay to the credit of the Museum Delegates the sum of 1,000*l.*, to be employed at their discretion for the maintenance and improvement of the Collections in the Museum; a full statement of the expenditure for these purposes being prepared annually and reported to Convocation.

MAGDALEN COLLEGE.—*Demyships and Exhibition.*—There will be an election at this College in October next to not less than Six Demyships and One Exhibition. Of the Demyships, one at least will be Mathematical, one at least in Natural Science, and the rest Classical. The Exhibition will be in Mathematics, is of the value of 75*l.* per annum, inclusive of all allowances, and is tenable for five years.

EXETER COLLEGE—There will be an Election to a Natural Science Fellowship in this College on Wednesday, June 10. The Examination will be in Biology. The Fellow elected will be required to reside and take part in the instruction of the College. The election will take place under the conditions of the following special ordinance of the College:—"Any Fellow who shall be elected previous to June 1874, with the declared purpose of taking part as Tutor or Lecturer in the College, shall *ipso facto* vacate his Fellowship on ceasing to reside. Provided also that if the said Fellow shall have taken part as Tutor or Lecturer in the College for seven academic years, consecutively or not, or for part of the time in one office and part in the other, he shall retain his Fellowship, subject only to the other causes of avoidance of Fellowship. Any fellow so elected shall hold himself bound, on pain of the loss of his Fellowship, to take part, if required, as Tutor or Lecturer in the College. If any such Fellow be incapacitated through ill health for educational work in the College, it shall be competent for two-thirds of the Governing Body, with the sanction of the Visitor, to dispense with the required residence during the continuance of such ill health." The Fellow elected under the ordinance will be subject in all other respects to the Statutes of the College. The Examination will begin on Tuesday, June 11, and no person can be admitted as a Candidate who has not passed all the Examinations necessary for the degree of Bachelor of Arts in the University of Oxford, or been incorporated as a graduate in the University.

SECOND PUBLIC EXAMINATION.—*Pass School.*—In pursuance of the statute, the Board of Studies for directing the Examination of Candidates who do not seek Honours at the Second Public Examination, and also the Examination in the Rudiments of Faith and Religion, gives notice that the books and subjects which may be offered in the Easter and Trinity Terms 1874, and until further notice, are—

*In Group C.*—(1) The Elements of Plane Geometry, including the doctrine of similar triangles. This includes the portion of Geometry treated of in Euclid Books I.-IV., with the definitions of Book V., and such parts of Book VI. as treat of similar triangles. These subjects may be read in any other treatise. The Elements of Trigonometry, including the trigonometrical ratios of the sum of two angles, the solution of plane triangles, the use of logarithms, and the mensuration of plane rectilinear figures. (2.) The Elements of the Mechanics of Solid and Fluid Bodies, including the composition and resolution of forces, centre of gravity, the simple machines and the application of virtual velocities to them, the laws of motion, the laws of falling bodies, the motion of projectiles, the pressure of fluids on surfaces, the equilibrium of floating bodies exclusive of the theory of stability, the methods of determining specific gravities, the laws of elastic fluids, simple hydrostatical and pneumatical machines. (3.) The Elements of Chemistry, with an elementary practical examination. Candidates who intend to offer this

© 1872 Nature Publishing Group

subject for examination are recommended to read that part of Roscoe's "Lessons in Elementary Chemistry" which treats of Inorganic Chemistry (pp. 1-268, new edition, 1869). The practical examination will be in the following subjects as treated of in Harcourt and Madan's "Exercises in Practical Chemistry":—1. The preparation and examination of gases (pp. 59-107); 2. The qualitative analysis of single substances (pp. 247-300; see also sections IV. and V., omitting that which relates to substances or properties of substances not referred to in the Analytical Course). (4.) The Elements of Physics. Candidates offering themselves for examination in this subject will be expected to show an acquaintance with Part I., together with any two of Parts II., III., IV. of the following treatise;—"Elementary Treatise on Natural Philosophy," by Deschanel. Translated and edited by Prof. Everett. Part I. Mechanics, Hydrostatics, and Pneumatics. Part II. Heat. Part III. Electricity and Magnetism, of which chapter 39 may be omitted. Part IV. Light and Sound (which will be published in a few weeks(.

---

## *THE MURCHISON CHAIR OF GEOLOGY*

UPWARDS of a year ago we duly chronicled the founding of a chair of geology and mineralogy in the University of Edinburgh by Sir Roderick Murchison, and we augured that the munificence of the founder would not be long in bearing fruit. It is pleasant to learn that the first session has been concluded successfully, and that the class has been greatly larger than the most sanguine friends of geology in Scotland had anticipated. In addition to the ordinary lectures of the class-room, there have been frequent afternoon excursions to the field, where the principles of the science have been learnt in a way in which they cannot be from mere lectures or books. Edinburgh is peculiarly favoured by nature for instruction of this practical kind. The crags and ravines which surround, or even stand in the midst of, the streets and gardens furnish admirable models of many of the more important and striking facts of physical geology. These advantages have been fully made use of during the past winter and spring. There has been, we are told, a brisk sale of geological hammers, and bands of hammerers have been seen on Saturday afternoons wandering over hill-side and quarry. At the close of the session Prof. Geikie and his students celebrated the termination of their labours together by a week's holiday in the island of Arran. For such an excursion good weather is the first grand essential, and in this respect the party appears to have been singularly lucky. The days were bright and bracing, so that from the highest hill tops the eye could wander over all the wide expanse of firth and fell which lies between the mountains of Jura and the far-off faintly-seen uplands of Galloway.

It was chiefly to the northern half of the island that the attention of the excursionists was devoted. They traced, of course, the well-known and often-described features—the granite mountains and veins, the schists, the trap-dykes, the carboniferous sandstones, conglomerates, limestones and tuffs, the raised beaches, &c. But they noted some points which deserve, perhaps, more special remark than has yet been accorded to them, and of these we have been furnished with the following jottings:—

1. Some interesting observations were made on the relation between the joints of the granite and the forms of surface into which that rock has been wasted. Everybody who has seen the Arran mountains remembers their sharp serrated ridges and deep corries. It was noticed in all the examples which were visited that each knife-edged crest coincided with the intersection of two sets of joints dipping in opposite directions, as the ridge of a roof coincides with the line along which the two opposite slopes meet. Where the one set of joints differed most in angle of inclination from the other, there was seen to be a corresponding difference in the slope on two sides of the crest, the highly inclined joints having a steep face, sometimes quite a precipice, on their side, while the less inclined joints had a gentler declivity on the other. From the summits it seemed as if the changes in the direction and inclination of the granite ridges were largely due to changes in the trend and slope of the systems of cross-joints. But there was not time to work out this problem.

2. Some mineralogical and petrographical facts of interest were gleaned. The passage of the Arran pitchstone was traced into a dull pearlstone which appeared to be closely connected with, if, indeed, it did not pass into one of the pale compact felstones or "compact felspars." The common association of pitchstone with the tertiary volcanic rocks of the west coast, and its entire absence from any of the abundant palæozoic volcanic masses of the mainland, raises the suspicion that perhaps the Arran pitchstones are likewise of tertiary date. The association of these pitchstones with some of the characteristic felstones or porphyries of that island also suggests as late an origin for the latter. Some facts, indeed, were noted, which, if properly worked out, might throw light on this question. It was observed, for example, that in the picturesque columnar ridge above Corriegills the columns are so arranged as to indicate that the mass of rock flowed along and consolidated in a trough or hollow. Was this hollow a valley carved out of the denuded surface of the carboniferous rocks, and did the porphyry flow into it as a *coulée?* A phenomenon of rare occurrence was noted in this Corriegills porphyry. Usually the quartz in such rocks exists merely as irregularly-shaped blebs or grains. In this rock, however, it is crystallised, and frequently appears in little doubly-terminated pyramids. Some of the party spent half an hour in gathering up perfect crystals from the weathered hollows of the rock. These crystals do not occur in amygdaloidal cavities but as essential constituents of the rock. In the Goatfell granite some cavities were found with well crystallised quartz, and one of the party was fortunate enough to light upon one cavity from which he obtained a handful of small cairngorms.

3. The moraines of the Glen Cloy afforded a pleasant afternoon. It was matter for surprise to some of the party that amid all that has been written about Arran these truly remarkable moraines have not received more notice. It is true, they do not lie among the group of the higher mountains of the island, and they have not the magnificent setting around them which they would have had if they had stood in Glen Rosa, or Glen Sannox, or Glen Iorsa. But in none of these glens, even though they plunge into the very heart of the central mass of granite, is there anything in the way of moraines at all to compare with the huge concentric mounds of rock-rubbish, cumbered with blocks, which roughen the bottom and sides of the deep recess in which the upper part of Glen Cloy terminates. The plateau which served as the snow-field whence the Glen Cloy glacier was fed rises to an average height of only about 1,400 or 1,500 feet above the sea, while the neighbouring granite peaks are about twice as high. Yet the higher granite mountains have afforded comparatively few and small moraines. It gives a good notion of the severity of the climate during the glacial period to reflect that the little isolated patch of elevated ground, forming now the island of Arran, was large enough to nourish, even on its lower plateaux, snow-fields and glaciers.

4. Many striking lessons were learnt regarding some of the broad aspects of atmospheric denudation. Particularly were these lessons brought home to the mind among the wasted crags and corries of the granite mountains. Granite which, in the popular creed, is regarded as one of the most imperishable of rocks, was seen to be covered

© 1872 Nature Publishing Group